Unsorted Arrays vs Binary Search

Choose difficulty: ☑ Beginner ☑ Intermediate ☑ Advanced

1. What is the prerequisite to perform Binary Search?
- ○ a: The values in the array have a maximum bound value they can take
  Explanation
- ◉ b: Array must be sorted either in ascending or descending order
  Explanation
- ○ c: Array must be broken into sub-arrays
- ○ d: None of the above

2. Binary Search is an example of _____ algorithm.
- ○ a: Greedy
- ○ b: Dynamic Programming
- ○ c: Backtracking
- ◉ d: None of the above Explanation

3. Let us assume an array [1,23,145,178,1203]. How many iterations are needed to find 23? [Assuming we are considering floor of values for floating point values, and index starting from 1]
- ◉ a: 3 Explanation
- ○ b: 4
- ○ c: 2
- ○ d: 5

4. Let us assume an array [11, 33, 145, 1294, 1356, 1450, 3300, 4500, 6000, 8000, 9000]. Let us search for 4500 using binary search. What would be the mid values at the second and third iteration respectively? [Assuming we are considering floor of values for floating point values, and index starting from 1]
- ○ a: 1450 and 6000
- ◉ b: 6000 and 3300 Explanation
- ○ c: 6000 and 4500
- ○ d: 1450 and 4500

5. What is the space complexity of binary search implemented using recursion?
- ○ a: O(1)
- ○ b: O(N)
- ○ c: O(N log N)
- ◉ d: O(log N) Explanation